



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,477	10/22/2003	Wayne T. Mansell	1-24390	5033
4859	7590	06/30/2005	EXAMINER	
MACMILLAN SOBANSKI & TODD, LLC ONE MARITIME PLAZA FOURTH FLOOR 720 WATER STREET TOLEDO, OH 43604-1619			TRAN, DALENA	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**UNITED STATES DEPARTMENT OF COMMERCE****U.S. Patent and Trademark Office**

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---------------------------------------------------	---------------------

10-691,477

EXAMINER

ART UNIT PAPER

20050622

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Office Action Summary	Application No.	Applicant(s)
	10/691,477	MANSELL ET AL.
	Examiner	Art Unit
	Dalena Tran	3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 April 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-38 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 4/15/05. As per request, claims 6, 11, 13-14, 16 have been amended. Claim 38 has been added. Thus, claims 1-38 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-7, 9, 12-13, and 16-17, are rejected under 35 U.S.C.102(b) as being anticipated by Littlejohn et al. (5,033,000).

As per claim 1, Littlejohn et al. disclose an electronic control system for a personal mobility vehicle, the system comprising: at least one input, and at least one output, the input being adapted to be programmably mapped to the output according to a user's preference (see the abstract; columns 1-2, lines 56-23; and column 3, lines 59-65).

As per claim 2, Littlejohn et al. disclose a programmable processor for controlling the output in accordance with a signal from the input, and wherein the input is a switched input on a hand control module of a personal mobility vehicle (see columns 2-3, lines 39-7).

As per claims 3, and 7, Littlejohn et al. discloses the output is a power seat module (see columns 5-6, lines 56-2).

As per claim 5, Littlejohn et al. disclose the output is a motor control module and the processor controls a parameter of the motor control module in accordance with the signal from the switched input (see column 4, lines 27-57).

As per claim 6, Littlejohn et al. disclose a plurality of switched inputs including the at least one input and a plurality of outputs including at least one output, wherein different switched inputs are adapted to be programmably assigned to control different outputs (see columns 4-5, lines 58-55).

As per claim 9, Littlejohn et al. disclose the at least one output controls an accessory function, the at least one input is a switched input for controlling a vehicle light, the switched input being adapted to be programmably mapped to control the at least one output instead of the light (see columns 3-4, lines 66-26).

As per claim 12, Littlejohn et al. disclose a programmable processor and a memory with software embedded in the memory, the software being adapted to be configured so that the processor can map the input to control the output (see column 7, lines 61-66).

As per claim 13, Littlejohn et al. disclose a software profile is created for a particular user (see columns 1-2, lines 56-24).

As per claim 16, Littlejohn et al. disclose a personal mobility vehicle comprising a control system and at least one input (see at least the abstract), and at least one commonly used output, the input being programmable mapped to the output so that the commonly used output can be performed while minimizing the number of sequences of input commands required to perform the output (see column 3, lines 37-65).

As per claim 17, Littlejohn et al. disclose the output is a control module (see column 3, lines 37-65).

4. Claims 14-15, are rejected under 35 U.S.C.102(e) as being anticipated by Wakefield, II et al. (6,819,981).

As per claim 14, Wakefield, II et al. disclose an electronic control system for a personal mobility vehicle, the system comprising: at least one user interface object (see column 1, lines 7-34), a plurality of targets, and a processor that is programmable to send an action message from the user interface object to a desired one of the targets (see columns 1-2, lines 35-53).

As per claim 15, Wakefield, II et al. disclose the user interface object is a switched input, the processor being programmable to cause the switched input to act as either a latched input or an unlatched input (see columns 7-9, lines 25-9).

5. Claims 21-22, 24, 30-32, 34-35, and 38, are rejected under 35 U.S.C.102(e) as being anticipated by Ulrich et al. (6,807,465).

As per claims 21-22, Ulrich et al. disclose a method for mapping personal mobility vehicle inputs to outputs, the method comprising: providing a personal mobility vehicle having inputs, outputs, and a programmable processor for performing operations or control functions of the outputs in response to signals from the inputs (see columns 4-6, lines 12-2), selecting a desired input (see columns 1-2, lines 64-19), assigning an operation or control function to the desired input, and associating an output with the assigned operation or control function (see columns 4-6, lines 44-2).

Art Unit: 3661

As per claims 24, and 31, Ulrich et al. disclose providing a program editor, wherein the program editor is a software application, the software application is integral with the personal mobility vehicle (see column 4, lines 13-43).

As per claims 32, and 34-35, Ulrich et al. disclose software application is stored in an external device, the external device is in the form of a personal computer, the software is a user-friendly windows application software (see columns 4-6, lines 44-2).

As per claim 30, Ulrich et al. disclose providing a field, and entering an output into the field (see columns 4-5, lines 44-28).

As per claim 38, Ulrich et al. disclose an electronic control system for a wheelchair, comprising: a plurality of input device (see columns 1-2, lines 64-20), a plurality of output device, and a control system for controlling the output devices in response to signals from the input devices, the control system being programmable to map the input device to desired output devices according to a user's preferences (see columns 4-6, lines 44-2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 8, and 10-11, are rejected under 35 U.S.C.103(a) as being unpatentable over Littlejohn et al. (5,033,000) in view of Rice, Jr. et al. (5,345,226).

As per claim 4, Littlejohn et al. do not disclose the output is an environmental control module. However, Rice, Jr. et al. disclose the output is an environmental control module (see the

Art Unit: 3661

abstract; and column 2, lines 1-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Littlejohn et al. by combining the output is an environmental control module to assist the user control any device around the user which minimizes human assistance and maximizes user independence.

As per claim 8, Littlejohn et al. do not disclose an accessory function. However, Rice, Jr. et al. discloses the at least one output controls an accessory function (see columns 4-5, lines 41-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Littlejohn et al. by combining the at least one output controls an accessory function to provide maximum variety control functions around the user.

As per claim 10, Rice, Jr. et al. disclose the at least one input is a switched input for controlling another output that is infrequently used, the switched input being adapted to be programmably mapped to control the at least one output instead of the infrequently used output (see columns 4-5, lines 44-10; and columns 9-10, lines 66-32).

As per claim 11, Littlejohn et al. disclose a processor (see column 2, lines 3-12), a hand control module (see columns 2-3, lines 54-6), the hand control module comprising a visual graphic, and an analog input for navigating through the visual graphic to control the at least one output, the processor being programmable to map the switched input to control the at least one output instead of the infrequently used output (see columns 2-3, lines 39-6; and columns 3-4, lines 66-26). Littlejohn et al. do not disclose the processor for controlling the infrequently used output in response to a signal from the switched input. However, Rice, Jr. et al. discloses another output that is infrequently used, the at least one input being a switched input on the hand control module, the processor for controlling the infrequently used output in response to a signal

from the switched input (see columns 3-4, lines 10-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Littlejohn et al. by combining the processor for controlling the infrequently used output in response to a signal from the switched input to allow the user to perform different task efficiently.

8. Claims 25, 27, and 36-37, are rejected under 35 U.S.C.103(a) as being unpatentable over Ulrich et al. (6,807,465) in view of Littlejohn et al. (5,033,000).

As per claim 25, Ulrich et al. do not disclose a list of inputs. However, Littlejohn et al. disclose a list of inputs, and selecting an input from the list (see columns 4-5, lines 27-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Ulrich et al. by combining a list of inputs to providing different types of tasks for the user, for enabling the user control and interact with various devices and facilities in their environment.

Also, as per claim 27, Littlejohn et al. disclose providing a list of operations or control functions, and selecting an operation or control function from the list (see columns 6-7, lines 13-68).

As per claims 36-37, Littlejohn et al. discloses the operations or control functions include action messages and parameter values, and the outputs include one or more control modules (see columns 5-6, lines 51-2; and columns 6-8, lines 65-13).

9. Claims 18-20, are rejected under 35 U.S.C.103(a) as being unpatentable over Littlejohn et al. (5,033,000) in view of Wakefield, II et al. (6,819,981).

As per claims 18, and 20, Littlejohn et al. do not disclose external device is a handheld. However, Wakefield, II et al. discloses a connector for attaching an external device to the

Art Unit: 3661

vehicle, the inputs being mapped to the outputs with the external device, the external device is a personal computer, and the external device is a handheld device including an application capable of mapping the inputs to the outputs (see column 6, lines 33-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Littlejohn et al. by combining an external device is a handheld to the vehicle for controlling input entering by the user and user data.

As per claim 19, Wakefield, II et al. disclose external device is a personal computer including an application capable of mapping the inputs to the outputs (see columns 7-9, lines 60-9).

10. Claims 26, 28, and 33, are rejected under 35 U.S.C.103(a) as being unpatentable over Ulrich et al. (6,807,465) in view of Wakefield, II et al. (6,819,981).

As per claim 26, Ulrich et al. do not disclose providing a field. However, Wakefield, II et al. disclose providing a field and entering an input (see columns 7-9, lines 60-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Ulrich et al. by combining providing a field allow the user select and enter a command selection.

Also, as per claim 28, Wakefield, II et al. disclose providing a field, and entering an operation or control function into the field (see columns 9-10, lines 10-12).

As per claim 33, Wakefield, II et al. disclose the external device is in the form of a handheld pendant (see column 6, lines 33-60).

11. Claims 23, and 29, are rejected under 35 U.S.C.103(a) as being unpatentable over Ulrich et al. (6,807,465) in view of Wakefield, II (5,961,561).

Art Unit: 3661

As per claim 23, Ulrich et al. do not disclose entering a programming mode. However, Wakefield, II discloses entering a programming mode, and depressing the desired input (see column 4, lines 23-33; and columns 8-9, lines 26-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Ulrich et al. by combining entering a programming mode to control the operation of the wheel chair.

Also, as per claim 29, Wakefield, II discloses providing a list of outputs and selecting an output from the list (see columns 6-7, lines 57-53; and column 12, lines 14-67).

Remarks

12. Applicant's argument filed on 4/15/05 has been fully considered. Upon updated search, the new ground of rejection has been set forth as above.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Dalena Tran



June 23, 2005